SÖNNING et al
Appl. No. 09/667,528

REMARKS/ARGUMENTS

Reexamination of the captioned application is respectfully requested.

A. SUMMARY OF THIS AMENDMENT

By the current amendment, Applicants:

1. Thank the Examiner for the indication of allowable subject matter of claims 9 – 10 and 23 – 24.

2. Amend claims 1-14 and 16 – 24.

3. Add new claims 25 - 31.

4. Respectfully traverse all prior art rejections.

B. AMENDMENTS TO THE CLAIMS AND NEW CLAIMS

The claims have been amended primarily to delete reference numerals and for consistency with United States practice. New claims 25 – 31 basically correspond to amended claims 1 – 7, but are generally devoid of means plus function terminology.

C. PATENTABILITY OF THE CLAIMS

Claims 1-8 and 11-22 stand rejected under 35 USC 102(e) as being anticipated by U.S. Patent 6,507,629 to Hatakeyama (see enumerated paragraph 10 of the Office Action). All prior art rejections are respectfully traversed for at least the following reasons.

Fig. 3 of Applicants' disclosure shows a block diagram of a transmitter TX with an interleaver. A data source DS outputs the bit stream US; this bit stream US is fed to a convolution coder CC (In accordance with page 5, last paragraph of the specification, the convolution coder CC is only an example of a channel encoder CC). The result of the channel encoding in the channel encoder CC is a bit stream BS which contains channel encoded (CC) code symbols. The channel encoded code symbols are then combined with

SÖNNING et al
Appl. No. 09/667,528

control information CI in the combining memory COM (an example of the combining as shown in Fig. 4 of the present application). The combined code words (Fig 4) are then fed to the interleaving memory TM and the output BS is fed to a CDMA modulator MOD. In accordance with page 7, second paragraph, the modulator MOD is only one example of the processing/processing parts which may be controlled with the control information. In this connection, page 4, second paragraph describes the general usage of the control information for controlling other processing within the transmitter unit.

In contrast to the prior art (depicted in Fig. 3), Applicants combine channel encoded code symbols with the control Information CI in the combining means COM. The combined code word is then encoded in the CI/CSENC and is (after interleaving) again decoded in the CI/CS decoder. Thus, rather than combining the digital bit stream output from the data source DS, Applicants' combining means combines channel encoded (CC) code symbols with the control information and then codes these combined code words. This feature, previously resident in the original claims, is further emphasized in the amended independent claims.

U.S. Patent 6,507,629 to Hatakeyama fails to teach or suggest the claimed combining means and coding means between his convolutional coder 21 and his interleaver 22 (see, e.g., Fig. 4 of U.S. Patent 6,507,629 to Hatakeyama)..

The examiner contends that the CRC generator 20 should be equated to the combining means of claim 1. Applicants respectfully disagree. In accordance with column 7, line 40-52 of U.S. Patent 6,507,629 to Hatakeyama, the CRC generator 20 takes in the audio data D1 - which does _not_ containing code symbols - and combines it with communication control data D4. However, this is only the normal functioning of a CRC generator using equation (1). The CRC generator 20 does not combine each code symbol with its respective or corresponding control information but a complete bit stream D1 with a complete control bit stream D4. As column 8, line 21-22 U.S. Patent

SÖNNING et al.
Appl. No. 09/667,528

6,507,629 to Hatakeyama correctly describes, code symbols are only output by the convolutional coder 21.

Therefore, features such as paragraph limitations a), b) of claim 1 are not taught or suggested by U.S. Patent 6,507,629 to Hatakeyama. In U.S. Patent 6,507,629 to Hatakeyama there simply is no combining means for combining channel encoded code symbols with control information between the units 21 and the unit 22 . Furthermore, it is quite apparent that there is no encoding means between units 21, 22.

Moreover, U.S. Patent 6,507,629 to Hatakeyama is deficient because the combination of a bit stream D4 with another bit stream D1 before the convolutional coder 21 does not relate at all to combining code symbols with control information. There is no motivation from U.S. Patent 6,507,629 to Hatakeyama to place a combiner and coder between the units 21, 22. Furthermore, according to the amended first paragraph of claim 1, each control information corresponds to a code symbol, i.e. is associated with it (see page 4, second paragraph and page 5, first paragraph of the specification). This association does not characterize the bit stream D4 and the bit stream D1 in Fig. 4 of U.S. Patent 6,507,629 to Hatakeyama, because neither D1 nor D4 contain any code symbols.

The foregoing considerations, expressed in terms of independent claim 1, applies equally to all independent claims.

C. MISCELLANEOUS

In view of the foregoing and other considerations, the Examiner has ample bases for withdrawing all rejections and for allowance of all pending claims. Accordingly, a formal indication of allowance is earnestly solicited.
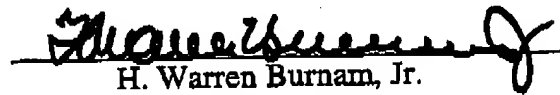
21

SÖNNING et al
Appl. No. 09/667,528

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: _____
        H. Warren Burnam, Jr.
        Reg. No. 29,366

HWB:lsh
1100 North Glebe Road, 8th Floor
Arlington, VA 22201-4714
Telephone: (703) 816-4000
Facsimile: (703) 816-4100